

U. S. NUCLEAR REGULATORY COMMISSION
REGION 1

Report Nos. 50-277/91-10
50-278/91-10

Docket Nos. 50-277
50-278

License Nos. DPR-44
DRP-56

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Facility Name: Peach Bottom Atomic Power Station, Units 2 and 3

Inspection At: Delta, Pennsylvania

Inspection Conducted: March 4 - 8, 1991

Type of Inspection: Routine Unannounced Physical Security

Inspectors: A. Della Ratta
A. Della Ratta, Physical Security Inspector

4-08-91
date

D. F. Linroth
D. F. Linroth, Senior Reactor Engineer

4/13/91
date

Approved by: R. R. Keimig
R. R. Keimig, Chief, Safeguards Section
Facilities Radiological Safety
and Safeguards Branch

4-4-91
date

Inspection Summary: Routine Unannounced Physical Security Inspection on
March 4 - 8, 1991 (Combined Report Nos. 50-277/91-10 and 50-278/91-10)

Areas Inspected: Management Support, Security Program Plans, and Audits;
Protected and Vital Area Physical Barriers, Detection and Assessment Aids;
Protected and Vital Area Access Control of Personnel, Packages and Vehicles;
Alarm Stations and Communications; Power Supply; Testing, Maintenance and
Compensatory Measures; Personnel Training and Qualification; Land Vehicle Bomb
Contingency Procedure Verification; and follow-up on previously identified
items.

Results: The licensee was found to be in compliance with NRC requirements in
the areas inspected.

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Details

1.0 Key Personnel Contacted

1.1 Licensee and Contractor Personnel

- * D. Miller, Jr., Vice President - Peach Bottom Atomic Power Station (PBAPS)
- * R. Weindorfer, Corporate Manager Nuclear Plant Security and Safety
- G. Daebeler, Support Manager
- * G. Bird, Branch Head - Nuclear Security
- * G. Cary, Chief Security Coordinator
- * V. Vitale, Vice President - Protection Technology, Inc. (PTI)
- * C. Brockman, Security Force Supervisor (PTI)
- * D. Foss, Regulatory Group Leader
- * R. Knieriem, Delmarva Power
- * R. Moore, Nuclear Quality Assurance Engineer
- R. Linauts, Corporate Security Analyst
- R. Smith, Inspection Coordinator
- A. Fulvio, Regulatory Engineer
- J. Pratt, Manager Quality Assurance
- H. Owrutsky, Nuclear Security - Technical Engineer
- W. Trump, Training Coordinator (PTI)
- M. Trump, Support Office Manager (PTI)

1.2 U.S. Nuclear Regulatory Commission

- J. Lyash, Senior Resident Inspector
- * L. Myers, Resident Inspector
- * R. Keimig, Chief, Safeguards Section, Region I

* indicates those present at the exit interview

The inspectors also interviewed other licensee personnel and members of the contract security force during the inspection.

2.0 Follow Up on Previously Identified Items

- 2.1 (Closed) VIO 50-277/90-08-04 and 50-278/90-08-04: The licensee failed to test the security personnel for glaucoma. The inspectors determined through a review of selected security personnel medical records that the glaucoma tests are being performed as required. The licensee is performing the tests at the station with the use of its own glaucoma testing apparatus.
- 2.2 (Closed) UNR 50-277/90-08-01 and 50-278-90-08-01: The inspectors identified several deficiencies in the intrusion detection system. The licensee corrected the deficiencies and committed to review this

matter further and implement other corrective measures which would further enhance the protected area (PA) detection aids. During this inspection the inspectors determined by observation of testing that the licensee has significantly upgraded the perimeter intrusion detection system. Additionally, the licensee has revised the testing procedure to ensure that the systems are appropriately challenged.

- 2.3 (Closed) UNR 50-277/90-08-02 and 50-278/90-08-02: The inspectors determined that the licensee's assessment aids were deficient in certain areas. The licensee committed to review this matter further and to implement corrective actions that would restore the assessment aids to their original performance capability. During this inspection the inspectors determined by observation that the licensee has corrected the assessment aids deficiencies. Also, the licensee is presently conducting an engineering evaluation for replacing certain assessment equipment.
- 2.4 (Closed) UNR 50-277/90-08-03 and 50-278/90-08-03: The inspectors' review of the documented 31-day review and discussions with the licensee's staff revealed that the review for continued access to vital areas (VAs) was shallow. The licensee committed to improving the VA access review by providing supervisors with a more informative document to determine the need for continued unescorted access. During this inspection the inspectors determined through a review of records that the licensee has developed a computer program that now provides the supervisors with better information for determining the need for continued unescorted access. The number of personnel with unescorted access to VAs had been significantly reduced.

3.0 Management Support, Security Program Plans, and Audits

- 3.1 Management Support - Management support for the licensee's physical security program was determined to be adequate by the inspectors. This determination was based upon the inspectors' review, during this inspection, of the progress being made on program upgrades and the continuation of long-term planning as documented in this report. Since the last routine physical inspection, which was documented in combined NRC Inspection Report Nos. 50-277/90-08 and 50-278-90-08, the licensee continued to upgrade the security program as described below:

- Replaced the monitors located in the alarm stations and tested and reviewed over six new types of cameras to determine the most effective to replace the present cameras.
- Acquired a new printer, keyboards and keyboard covers for the alarm stations and incorporated a computer data base system that provides storage and retrieval of all personnel information, background information, training records, and medical data in a central data base.

- Developed tactical maps to assist the response force leader when directing security activities and installed barriers to hamper intrusion in certain zones.
- Purchased upgraded perimeter intrusion detection equipment. Installation is scheduled in the near future.
- Purchased 69 portable 5 channel radios for use by the Nuclear Security Section.
- Totally renovated the Guardhouse and Search Area in order to expedite search procedures while enhancing effectiveness. This included new explosive detectors, new metal detectors, X-ray equipment upgrades, new rotogates, new control circuitry, and a redesigned badge issuance area.
- Assigned a full-time Security Engineering Coordinator, reporting to the Branch Head-Nuclear Security, to assist with ongoing improvement and operational enhancement of the security program.
- Improved emergency access to critical areas by eliminating keypad card readers at various locations within the plant.
- Is in the process of incorporating the Unit-1 facility and the new training and medical facility into the site security system.

Based upon the inspectors' review of the security program and the efforts being made to upgrade and enhance it, the inspectors determined that the program is continuing to receive appropriate management attention and support.

3.2 Security Program Plan - The inspectors noted that, subsequent to the last inspection, the licensee submitted one change to the Contingency Plan and one change to the Guard Training and Qualification Plan in accordance with 10 CFR 50.54 (p). These changes are in the process of being reviewed by the NRC.

3.3 Audits - The inspectors reviewed the 1990 annual security program audit reports and verified that the audits had been conducted in accordance with the NRC-approved physical security plan (the Plan). The inspectors' review disclosed that the results of the audits were reported to the appropriate levels of management. The corrective actions implemented for the findings of the audits appeared appropriate and were either satisfactorily resolved or in the process of being resolved.

4.0 Protected and Vital Area Physical Barriers, Detection and Assessment Aids

- 4.1 Protected Area Barriers - The inspectors conducted a physical inspection of the protected area (PA) barrier on March 4 and 5, 1991, and determined by observation that the barriers were installed and maintained as described in the Plan.
- 4.2 Protected Area Detection Aids - The inspectors observed the PA perimeter detection aids on March 5, 1991, and determined that they were installed, maintained, and operated as committed to in the Plan.
- 4.3 Isolation Zones - The inspectors verified that the isolation zones were adequately maintained to permit observation of activities on both sides of the protected area barrier. No deficiencies were noted.
- 4.4 Assessment Aids - The inspectors observed the PA perimeter assessment system and determined that it was installed, maintained, and operated as committed to in the Plan.
- 4.5 Protected Area and Isolation Zone Lighting - The inspectors conducted a lighting survey of the PA and isolation zones on March 5, 1991. The inspectors determined by observations that the lighting was very effective and consistent with the Plan requirements. No deficiencies were noted.
- 4.6 Vital Area Barriers - The inspectors conducted a physical inspection of selected vital area (VA) barriers on March 6, 1991. The inspectors determined by observation that the barriers were installed and maintained as described in the Plan. Also, on December 12, 1990 the licensee completed Modification No. 2395 which covered the installation of security barriers in heating, ventilating, air conditioning (HVAC) ducting. The inspectors determined by observation that the security barriers were adequate for their intended purpose. No deficiencies were noted.
- 4.7 Vital Area Detection Aids - The inspectors observed and requested testing of selected VA detection aids and determined that they were installed, maintained and operated as committed to in the Plan. No deficiencies were noted.

5.0 Protected and Vital Area Access Control of Personnel Packages and Vehicles

- 5.1 Personnel Access Control - The inspectors determined that the licensee was exercising positive control over personnel access to the PA and VA's. This determination was based on the following:
 - The inspectors verified by observation that personnel are properly identified, and authorization is checked, prior to issuance of badges and key-cards. No deficiencies were noted.

- The inspectors verified that the licensee has a program to confirm the trustworthiness and reliability of employees and contractor personnel. This program includes checks on employment, credit, and criminal history, psychological examination and fitness-for-duty. No deficiencies were noted.
- The inspectors reviewed the security lock and key procedures and determined that they were consistent with commitments in the Plan. The inspectors also reviewed the protected and vital area key inventory logs, and discussed lock and key procedures with members of the licensee's security staff. No deficiencies were noted.
- The inspectors verified that the licensee takes precautions to ensure that an unauthorized name cannot be added to the PA access list by having a member of management review the list every 31 days. No deficiencies were noted.
- The inspectors verified that the licensee has a search program, as committed to in the Plan, for firearms, explosives, incendiary devices and other unauthorized materials. The inspectors observed personnel access processing during shift changes, visitor access processing, and interviewed members of the security force and licensee's security staff about personnel access procedures. No deficiencies were noted.
- The inspectors determined by observation that individuals in the PA and VAs display their access badges as required. No deficiencies were noted.
- The inspectors verified that the licensee has escort procedures for visitors to the PA and VAs. No deficiencies were noted.
- The inspectors verified that the licensee has a mechanism for expediting access to vital equipment during emergencies and that the mechanism is adequate for its purpose. No deficiencies were noted.
- The inspectors verified that unescorted access to VAs is limited to authorized individuals. The access list is revalidated at least once every 31 days as committed to in the Plan.

5.2 Package and Material Access Control - The inspectors determined that the licensee was exercising positive control over packages and materials that are brought into the PA at the main access control portal. The inspectors reviewed the package and material control procedures and found that they were consistent with commitments in the Plan. The inspectors also observed package and material processing and interviewed members of the security force and the licensee's security staff about package and material control procedures. No deficiencies were identified.

- 5.3 Vehicle Access Control - The inspectors determined that the licensee properly controls access to and within the PA. The inspectors verified that vehicles are properly processed prior to entering the PA. The process was consistent with commitments in the Plan. The inspectors also reviewed the vehicle search procedures and determined they were consistent with commitments in the Plan. This determination was made by observing vehicle processing and search, inspection of vehicle logs, and by interviewing security officers and licensee's security staff about vehicle processing and search procedures. No deficiencies were noted.
- 6.0 Alarm Station and Communications - The inspectors observed the operations of the Central Alarm Station (CAS) and the Secondary Alarm Station (SAS) and determined that they were maintained and operated as committed to in the Plan. CAS and SAS operators were interviewed by the inspectors and found to be knowledgeable of their duties and responsibilities. The inspectors verified that the CAS and SAS do not contain any operational functions that would interfere with the assessment and response functions. No deficiencies were noted.
- 7.0 Emergency Power Supply - The inspectors verified that there are several systems (batteries, dedicated diesel generator within a VA, and plant on-site AC power) that provide backup power to the security systems. The inspectors reviewed the test and maintenance records and procedures for these systems and found that they were consistent with the Plan. No deficiencies were noted.
- 8.0 Testing, Maintenance, and Compensatory Measures - The inspectors reviewed the testing and maintenance records for security-related equipment and confirmed that tests were conducted, maintenance was performed and records were maintained as committed to in the Plan. During inspection 90-08, the inspectors concluded that the Preventive Maintenance (PM) program was not being properly implemented due to inconsistent conformance with PM procedures primarily because there was no tracking system to alert personnel when the PMs were due.

The inspectors reviewed the licensee's corrective action and noted that PMs are now managed under the Computerized History and Maintenance Planning System (CHAMPS).

The inspectors selected several PM actions and verified that these actions had been scheduled and performed at the correct frequency in accordance with appropriate procedures, that results had been documented, and that the completed procedures had been reviewed and approved in accordance with plant procedures. The Technical Assistant in the Security Organization was examining means to obtain trending information from this system. The inspectors had no further questions in this area.

The inspectors also reviewed the licensee's use of compensatory measures and determined them to be as committed to in the Plan. No deficiencies were noted.

- 9.0 Security Training and Qualification - The inspectors randomly selected and reviewed the training and qualification records for 13 security force members (SFMs). Physical qualifications and firearms qualification records were also inspected. These records were for armed, unarmed and supervisory personnel. The inspectors determined that training had been conducted in accordance with the security program plans, and that it was properly documented.

Several SFMs were interviewed to determine if they possessed the requisite knowledge and ability to carry out their assigned duties. The interview results indicated that they were knowledgeable and professional in performing their job requirements.

- 10.0 Land Vehicle Bomb Contingency Procedure - During combined inspection Nos. 50-277/90-08 and 50-278/90-08, the inspectors inadvertently excluded the results of their review of the licensee's Land Vehicle Bomb Contingency Procedure from the inspection report. The licensee's procedure details short-term actions that could be taken to protect against attempted radiological sabotage involving a land vehicle bomb if such a threat were to materialize. The procedure was adequate for its intended purpose. No deficiencies were noted.

- 11.0 Exit Interview - The inspectors met with the licensee representatives indicated in Paragraph 1 at the conclusion of the inspection on March 8, 1991. At that time, the purpose and scope of the inspection was reviewed and the findings were presented.